

Name: _____

pa1106: Factoring with box when $a = \text{prime}$ (v4)

Example

Use the box to factor $2x^2 - 9x - 18$.

Guess and check, based on factor pairs of -18 , until you find the pair that results in a linear coefficient of -9 after combining like terms.

*	x	-6
2x	$2x^2$	$-12x$
3	3x	-18

$2x^2 - 12x + 3x - 18$

Combine like terms.

$2x^2 - 9x - 18$

ANSWER: $(2x + 3)(x - 6)$

Question 1

Use the box to factor $7x^2 + 47x + 30$.

*	x	
7x	$7x^2$	
		30

ANSWER:

Question 2Use the box to factor $3x^2 - 14x - 49$.

*	x	
3x	$3x^2$	
		-49

ANSWER:

Question 3Use the box to factor $5x^2 - 48x + 27$.

*		

ANSWER: